INTEGRATED RESOURCE PLAN:

BLACKFOOT

OPERATIONAL DEVELOPMENT

Alberta

ENERGY AND
NATURAL RESOURCES
Resource Evaluation and Planning

Integrated Resource Plan

BLACKFOOT OPERATIONAL

DEVELOPMENT PLAN

December
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BLACKFOOT OPERATIONAL

DEVELOPMENT PLAN

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EXECUTIVE SUMMARY

Blackfoot is a 9712 ha (24,000 a.) area of Crown land about 40 km (25 mi.) east of Edmonton. For years it has been managed by a local grazing association. Lately, it has become increasingly popular for recreation.

The association has recognized the need for improved grazing within the area. Also realizing that a grazing association lacks the authority to deal with the pressures of recreational land use, it has requested that the provincial government develop and operate Blackfoot as a provincial grazing reserve.

In response, the government first developed an integrated resource plan for Blackfoot. Comments gained from this publicly reviewed plan and from the draft Blackfoot Operational Development Plan have been considered in this final plan.

The Blackfoot Operational Development Plan ensures several benefits for Albertans residing near Blackfoot: an improved grazing resource, wildlife diversity and year-round day-use recreational opportunities.

Improved Grazing. Improved grazing developments for both cattle and wildlife will be provided on 2850 ha (7050 a.) of the Blackfoot area.

The designated improved grazing area as shown on Map 1 will supply a five-month summer grazing season for cattle. Recognizing the existing lease commitment, members of the local grazing association will receive first consideration for cattle placement on the Blackfoot area. Should the available forage for cattle not be totally utilized by the association, the remaining cattle grazing opportunities will be made available for area farmers.

Under the planned grazing system, there will be seven fenced pastures. In summer, only two will be occupied by cattle at any one time; five will be available to horseback riders. In winter, one will be available for elk grazing and six will be available to recreational snowmobilers.

Protection for Wildlife. To prevent an otherwise dramatic reduction in ungulate populations, an ungulate fence[1] will be constructed around Blackfoot. This will give visitors a better opportunity to view big game species.

Under the development proposals of this plan, elk populations should remain the same, white-tailed deer increase, and moose and mule deer decrease by 20 per cent. Once developments are complete, an

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[1]Ungulate fence: A 2.1 m (7 ft.) high, page wire fence designed to retain elk, moose and deer.

assessment will be made as to whether or not wildlife habitat improvement areas are needed.

As a means of managing this wildlife resource, hunting by licensed hunters and non-licensed treaty Indians will be allowed.

An increase in both waterfowl and upland game bird hunting is anticipated for Blackfoot. An increase in deer hunting is also anticipated. Hunters will be encouraged by access restrictions to travel on foot. For public safety, the day-use areas will be posted and a 400 m (440 yd.) "no shooting zone" established around them.

For now, big game hunting will remain as an open season. Once the area is fully developed, a draw-permit system for big game hunters may become necessary. The vehicle access point for big game hunting will then be the central staging area. Vehicles will not be permitted off established roadways; driving around pastures will not be permitted.

Year-round Recreation. For viewing and appreciating the varied landscape and the diverse wildlife, three day-use recreation staging areas and a trail network will be developed over a three-year period (see Map 1). This will accommodate the expanding needs of cross-country skiers, snowshoers, snowmobilers, hunters, hikers, picnickers, horseback riders and canoeists. The plan contains provision for two more day-use

recreation staging areas to be developed when justified by demand. Until that time, every attempt will be made to minimize the disruption of present Blackfoot users.

Basic facilities will be provided at the day-use areas and, where possible, the existing trails will be incorporated into the approximately 90 km trail network.

The trail network will be designed for and restricted to hikers, hunters, skiers and horseback riders (the latter on designated trails only). Y-gates at trailheads will prevent cattle, horses and vehicles from entering those trails not designed for their use. The trails designed to accommodate horseback riding will have gates near pastures to block cattle, and will be posted as not accessible to snowmobiles at the recreation staging areas.

A full-time manager will co-ordinate recreation, wildlife and grazing activities within Blackfoot. The manager will be the contact person for the public.

The Blackfoot Operational Development Plan integrates, in the most compatible manner, improved grazing, wildlife protection and recreation. In recognition of the Blackfoot area's resource capability and the expressed public needs, the plan provides opportunities for various land-use activities to co-exist on a shared land base.

BLACKFOOT OPERATIONAL DEVELOPMENT PLAN
MAP 1

WEST OF THE FOURTH MERIDIAN

SCALE 1:40 000

Kilometres 1 ½ 0 ½ 1 Kilometres

Miles ½ 0 ½ Miles

LEGEND

- Loose or stabilized surface
- Loose surface dry weather roads
- Truck trails
- Seismograph lines or trails
- Pipeline
- Stream
- Wellsite
- Lake

FOURTEENTH BASE LINE

BLACKFOOT LAKE STAGING AREA (ALTERNATIVE)

Blackfoot Lake

ELK ISLAND NATIONAL PARK

TP.52, R.20

TP.52, R.19

WASKAHEGAN TRAIL HEADQUARTERS STAGING AREA

Wanisan Lake

WANISAN LAKE STAGING AREA (ALTERNATIVE)

CENTRAL STAGING AREA

STAGING AREA (ALTERNATIVE)

SUMMARY OF DEVELOPMENT

- Designated area for hiking, on-foot hunting, cross country skiing, snowshoeing, and horseback riding on designated trails.
- Possible adjustment area. (Refer to grazing section for details.)
- Designated area for improved summer grazing, horseback riding, roadway vehicle access hunting, elk wintering and snowmobiling. (Note: Although no hiker/skier trails are provided, these users can access the area.)
- Day-use recreation staging area
- Canoeing opportunities
- Trail network (eg. cross country skiing and hiking)
- Back-country shelter
- Ungulate fence

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PREFACE

The Blackfoot Operational Development Plan was revised in consideration of the public comments presented at the interest group meetings, the questionnaire comments on the draft plan and comments on the revised draft plan. The Operational Development Plan details the developments and the management programs required to meet the needs for improved grazing, wildlife protection and recreation in the Blackfoot area.

A major concern in the drafting of the Blackfoot Plan pertains to the use and administration of Crown land. Since this involves several government departments, an interdepartmental planning team was established, composed of designated representatives from:

Public Lands Division,
Alberta Energy and Natural Resources

Fish and Wildlife Division,
Alberta Energy and Natural Resources

Provincial Parks Division,
Alberta Recreation and Parks

Alberta Agriculture

Under the co-ordination of the Resource Planning Branch of Alberta Energy and Natural Resources, the planning team developed the Blackfoot Operational Development Plan.

For this document, both Alberta Environment and the Alberta Forest Service of Alberta Energy and Natural Resources chose to act in a consultative capacity to the planning team.

The planning and the development of the Blackfoot Integrated Resource Management area, the recreation facilities and the wildlife protection developments are funded by the Grazing Reserve Development Program of the Capital Projects Division of the Alberta Heritage Savings and Trust Fund. This is a 10 year program initiated in October, 1976.

METRIC CONVERSION FACTORS TABLE

Quantity	Convert From	To	Multiply By
Area	hectare (ha)	acre (a.)	2.47
Area	square kilometre (km^2)	square mile (sq.mi.)	0.386
Length	centimetre (cm)	inch (in.)	0.3937
Length	kilometre (km)	mile (mi.)	0.621
Length	metre (m)	feet (ft.)	3.2808
Mass	kilogram (kg)	pound (lb.)	2.205

DEFINITIONS

Blackfoot Integrated Resource Plan - At this planning level, resource objectives are identified for the planning area. The plan designates land-use areas and indicates activities permitted in each. These designated land-use areas provide for the resolution of land-use conflicts among domestic grazing, wildlife protection and recreation.

Blackfoot Operational Development Plan - At this planning level, the developments and management programs required to meet the needs for improved grazing, wildlife protection and recreation in the Blackfoot area are detailed.

Disk Harrow - A harrow with a row of sharp revolving disks used in preparing the ground for planting or sowing.

Hectare per Animal Unit Month (ha/AUM) - The estimated number of hectares (or acres) necessary to provide forage for one animal unit for one month under proper use. An animal unit represents a mature 450 kg or 1000 lb. cow with calf at side.

Ungulate Fence - A 2.1 m (7 ft.) high, page wire fence designed to retain elk, moose and deer.

SECTION ONE. INTRODUCTION

1.1 Area

The Blackfoot area is located approximately 40 km (25 mi.) east of Edmonton in County 9, Beaver (Map 2) on the southern limit of Elk Island National Park. This Crown land planning area is approximately 97.1 km^2 (37.5 sq. mi.) or 9712 ha (24,000 ac.) in size.

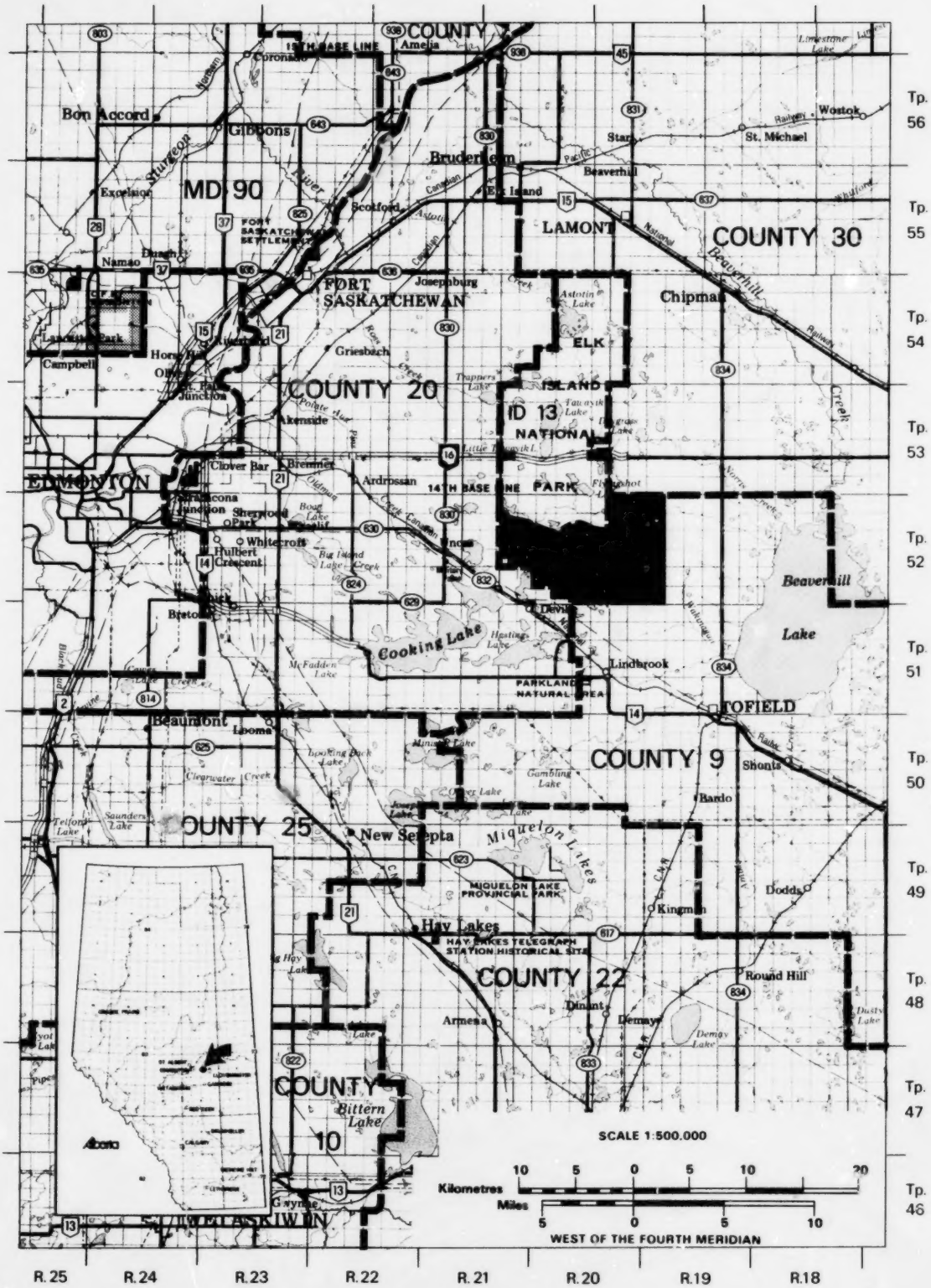
1.2 Objective

The objective of the plan is to detail what development is required in the Blackfoot area to meet the needs for improved grazing, wildlife protection and recreation. Management programs associated with the development are also outlined.

1.3 Background

For many years the Blackfoot area has been leased by a local grazing association. Over time, the area has also been gaining popularity for recreation. Features attracting people to Blackfoot are its tree-covered landscape (Photo 1) supportive of wildlife species, its varied topography (Photo 2) and its proximity to Edmonton.

Recognizing the need for management of the area's diverse resources, the provincial government developed an integrated resource



MAP 2-LOCATION OF THE BLACKFOOT PLANNING AREA

Photo 1. Blackfoot's Tree-Covered Landscape

Photo 2. Blackfoot's Varied Topography

plan for Blackfoot. Comments gained from the public's review of this document, and from the review of the draft and the revised draft Blackfoot Operational Development Plan, have been considered in this revision.

1.4 Procedure

In the planning process, each team member represents to the planning team all concerns pertinent to his or her agency. Acting as team leader and coordinator of client needs, the Resource Planning Branch prepares the written document illustrating the planning team's agreed upon action.

1.5 Scope and Limitations

When approved by the associate minister of Public Lands and Wildlife, the Blackfoot Operational Development Plan will be implemented by the Land Management and Development Branch of the Public Lands Division of Alberta Energy and Natural Resources and Alberta Recreation and Parks. Development work will not proceed prior to government approval of the plan. Government approval is given after final review of the plan by representatives of the interest groups who had provided comments on the draft plan.

It is recognized that when doing development work, on-site conditions may at times require minor changes to the plan. For example, a wet area designated for pasture improvement may be left as natural cover.

SECTION TWO. OPERATIONAL DEVELOPMENT PLAN

2.1 Introduction

The plan describes the improved grazing developments for both cattle and wildlife. Also identified is the ungulate fence line location. This fence will maintain a diverse ungulate population in Blackfoot. In addition, the plan outlines the recreation developments required to provide the Blackfoot visitors with a variety of day use recreation opportunities.

2.2 Improved Grazing

2.2.1 Introduction

Under the present unimproved grazing practice in the Blackfoot area (Photo 3), the grazing capacity is decreasing as bush land encroaches upon open areas. Because it recognized a need for improved grazing and because of its lack of authority in dealing with recreational land-use pressures (Photo 4), the local grazing association currently managing the Blackfoot area asked the provincial government to develop and operate the area as a provincial grazing reserve. As a result of this request, the provincial government drafted an integrated resource plan and an operational development plan for the area.

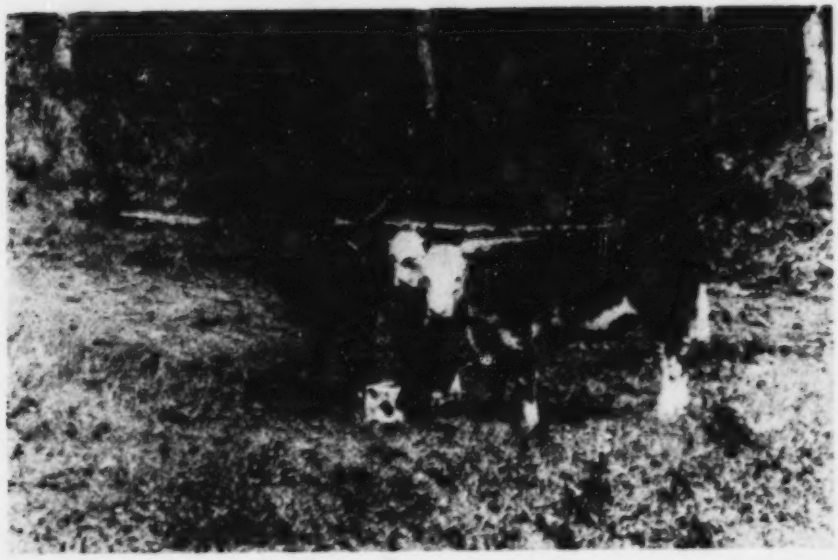


Photo 3. Present Unimproved Cattle Summer Grazing Practice

Photo 4. Recreational Land Use Pressure

2.2.2 Development

Improved grazing opportunities for both cattle and wildlife will be provided on 2850 ha of the Blackfoot area. Upon pasture development, the grazing capacity is estimated at 0.404 ha (1 a.) per animal unit month (ha/AUM). This will supply a 7000 AUM utilization of which 5900 AUM will be for domestic grazing and 1100 AUM for wildlife grazing.

The Blackfoot area will be divided into seven individually-fenced pastures plus two fenced holding pastures and a fenced holding area for stock loading and unloading. Additional cross fencing may be necessary for livestock and forage management. The Blackfoot manager may be provided with a year-round residence and the seasonal range riders may also be accommodated on site.

2.2.3 Grazing Component

The Blackfoot area will be developed by the Public Lands Division of Alberta Energy and Natural Resources, and on completion of development will be transferred to Alberta Recreation and Parks for administration. Alberta Recreation and Parks will lease the developed pasture lands and facilities to the Blackfoot Grazing Association for a 10-year term which will be renewable. The Blackfoot area will not be a provincial grazing reserve.

Details of the lease agreement between Alberta Recreation and Parks and the Blackfoot Grazing Association will be negotiated by mutual

agreement. The Public Lands and Fish and Wildlife Divisions of Alberta Energy and Natural Resources will provide assistance and direction to ensure that a satisfactory agreement is reached. A livestock operational plan will be developed by the Blackfoot Grazing Association and approved by Alberta Recreation and Parks prior to finalization of the lease agreement. The lease agreement will address such issues as the rental of the forage provided, municipal taxes and the lease rental fee.

Grazing patrons and Alberta Recreation and Parks will manage the livestock operation in a manner that is most suitable for blending into the integrated resource plan.

Should the total 5900 AUM for cattle grazing not be utilized by existing members of the association, the remaining AUM's would be available for area farmers and ranchers. These new members would apply for membership in the Blackfoot Grazing Association and would be subject to the association's policies and bylaws.

Operationally, the cattle are received in the spring of the year and are managed jointly by the Blackfoot Grazing Association and Alberta Recreation and Parks throughout the grazing season as provided for by the livestock operational plan. For the Blackfoot, a five-month grazing season commencing in mid-May and ending in mid-October will apply. The actual starting and ending dates may vary yearly with changing weather and forage conditions.

2.2.4 Development Considerations

Considering land capability, cattle cover needs, wildlife habitat protection and recreational activities, natural landscape areas will be left in the pasture development areas (Map 3). Natural landscape areas to be retained are:

1. Waterbodies with potential for waterfowl and furbearer production (Photo 5).
2. Wetland areas with established peripheral habitats with potential for wildlife utilization as well as sites currently used by wildlife (Photo 6).
3. Land areas representative of diverse habitat and topography with potential for wildlife utilization.
4. Suitably-sized leave-strips along some pastures to allow for the development of recreational trails.
5. A 100 m (330 ft.) buffer along the southern border of pasture 1.

Natural undeveloped areas (those areas to be left with natural vegetative cover) are represented conceptually on the maps. Detailed field checking will finalize an approximately 250 ha (620 a.) of natural cover to be retained within the pasture development areas. If more undeveloped area is identified, then compensation to the pastures will be made in the adjustment areas.

Photo 5. Waterbody with Potential for Waterfowl and Furbearer Production

Photo 6. Wetland Area with Established Peripheral Habitat with Potential for Wildlife Utilization

BLACKFOOT OPERATIONAL DEVELOPMENT PLAN
MAP 3

WEST OF THE FOURTH MERIDIAN

SCALE 1:40 000

Kilometres 1 ½ 0 ½ 1 Kilometres

Miles ½ 0 ½ Miles

LEGEND

- Loose or stabilized surface
- Loose surface dry weather roads
- Truck trails
- Seismograph lines or trails
- Pipeline
- Stream
- Wellsite
- Lake

FOURTEENTH BASE LINE

ELK ISLAND NATIONAL PARK

TP.52, R.20

TP.52, R.19

7
438ha
1082a.

6
517ha
1277a.

4
325ha
803a.

3
530ha
1309a.

2
391ha
967a.

5
390ha 963a.

HOLDING AREA
29ha 74a.

HOLDING PASTURE
131ha
325a.

HOLDING PASTURE
76ha
190a.

1
487ha
1204a.

1

Blackfoot Lake

Wanisan Lake

Lake

GRAZING DEVELOPMENT PLAN

- Natural landscape (approx. 6398ha or 15809a.)
- Possible adjustment area.
- Pasture development (approx. 3314ha or 8194a.)* (Pastures No. 1-7 and holding pastures and area.)
- Cattle travel lane

*Note: The total pasture required for improved grazing is 2850ha or 7042a. Detailed field checking will define all natural landscape areas to be left in the pasture development area.

If at all possible, each of the seven pastures will represent a similar AUM availability. However, this does not necessarily mean that each pasture will be the same size, for pasture sizes will vary depending on land capability and on the number of natural areas to be left in each pasture.

The perimeter three or four wire fencing for each pasture will have 100 cm (40 in.) wire and 40 cm (16 in.) bottom wire. This enables big game to cross fencing without injury. Where wildlife corridors develop, consideration may be given to either railing or dropping the top wire. Also, where hiking and cross-country skiing trails cross pastures, Y-gates will form a part of the pasture perimeter fencing. While giving hikers and skiers through access, cattle and vehicles cannot cross these gates. Other types of gates will be installed where horseback riding trails provide access to pastures. Gates to areas available to snowmobilers will be left open. Upgrading of the roadway to the holding corrals will be necessary to support cattleliners. The Public Lands Division of Alberta Energy and Natural Resources will work out an agreement with the County of Beaver.

2.2.5 Management Considerations

For maximum integration of wildlife, recreation and grazing, a combination "rest-rotational" (one pasture ungrazed by cattle for an entire growing season) and a "deferred-rotational" (pasture ungrazed by

cattle for a portion of the growing season) grazing system will be applied. More specifically, with a total of seven pastures, each pasture will be rested once every seven years, while the deferred-rotational system will apply to the other six pastures. With cattle grazing split between two herds, a three-pasture, deferred-rotational grazing system will apply to each herd. In this system, each pasture will be successively deferred (ungrazed) for a portion of the grazing season. To utilize better the total forage resource in a pasture rotation system, possibly one or two of the pastures will be grazed more than once in a grazing season. This allows for at least one light grazing, followed at a later date by a second grazing. With the application of the deferred-rest rotational grazing system, only two of the seven pastures will be occupied by cattle at any one time. Opportunities for organized horseback riding and hiking will be available in the five pastures unoccupied by cattle. The gates accessing these fields will remain open when cattle are not present to help clarify which fields are available for recreation.

2.2.6 Staging of the Pasture Development

Several years will be required to complete pasture development. In the fall or early winter of the first year prior to clearing, the pasture perimeters and natural areas to be retained within the pasture will be flagged (Photo 7). Winter clearing and piling in windrows will follow (Photo 8). Depending upon seasonal conditions, it may be possible to burn and repile the windrows the following summer or fall. For the

Photo 7. Example of Flagging Done on Other Grazing Developments

Photo 8. Example of Winter Clearing and Piling in Windrows Done on Other Grazing Developments

summer of the second year, some clearing may be left for grazing. In the summer of the third year, the clearing would be disked, seeded to grass and fenced as required.

In an attempt to maintain enough unimproved grazing land for the Blackfoot area's present cattle numbers while development work is underway, the 2850 ha (7042 a.) of clearing will be done over several years.

Local timber permits will be issued prior to clearing the pastures. The public will be able to salvage firewood by permit. The Alberta Forest Service will administer the issuing of permits.

2.3 Wildlife Protection

2.3.1 Introduction

The ungulate population in Blackfoot is currently estimated at 100 elk, 70 moose and 130 deer. Although mule deer and white-tailed deer are both present, the deer population is composed predominantly of white-tailed deer. Resident furbearers include coyote, beaver, muskrat, mink, weasel, skunk and red squirrel. The number of active beaver colonies in the area varies between 75 to 125, with six to eight beavers per colony. Birds found in Blackfoot are comparable to the 200 species

recorded in Elk Island National Park. The Fish and Wildlife Division's objective for the Blackfoot area is to maintain these diverse wildlife populations at levels which will allow both consumptive and nonconsumptive recreational opportunities. (Photos 9 and 10).

2.3.2 Development

In conjunction with the stated grazing and recreation objectives for Blackfoot, the Fish and Wildlife Division can attain its objective through the construction of an ungulate fence. This will help to maintain a diverse ungulate (elk, moose and deer) population in an area of intensive activity, for the fence provides the mechanism to maximize the carrying capacity of the remaining ungulate habitat. This habitat also supports and is important to other non-game species.

Without the ungulate fence, a loss in elk, moose, mule deer and a slight increase in white-tailed deer would be expected. Losses for the other species would be the result of habitat removal and harassment. Research in Alberta and other areas in North America shows that the first species lost would be elk, which are extremely sensitive to activity and readily abandon an area if disturbance is repetitive. For elk, it is irrelevant if the habitat is excellent or in poor condition; they will not reside in an area where human activity is excessive. Moose and mule deer would abandon Blackfoot for the same reason but to a lesser degree. In summation, without the fence ungulate populations (except white-tailed deer) would drop to dramatically reduced levels for use by Albertans in either consumptive or non-consumptive forms.

Photo 9. Ruffed Grouse

Photo 10. Mule Deer

With the ungulate fence and under the proposed development, elk populations are expected to remain the same, white-tailed deer to increase, and moose and mule deer to decline probably by 20 per cent.

The wildlife resource will be monitored during the planned grazing and recreation developments and for several years following their completion. An assessment will then be made as to whether some wildlife habitat improvements are necessary in the natural landscape area. These improvements would benefit several species of wildlife by increasing habitat diversity and the production of forage species (grasses, forbs and shrubs) in selected areas.

2.3.3 Development Considerations

Most of the ungulate fence line will follow the Blackfoot area boundary. The Islet Lake area represents the only significantly-sized land area outside the ungulate fence. For the ungulate fence line following the Blackfoot area boundary and adjacent to the pasture development area, an 80 m (262 ft.) tree cover buffer will be retained inside Blackfoot along the fence where feasible. The Fish and Wildlife Division will assist the Public Lands Division in flagging the ungulate fence line prior to its clearing. Based on the experience of other land managers with an ungulate fence, little maintenance is expected of the fence line other than that demanded by the occasional beaver flooding. For maintenance purposes, a vehicle trail will be required parallel to the fence line within Blackfoot. This trail will not be

designed for recreational use and its unauthorized vehicular use will be prohibited. Specifications of the material to be used in the construction of this fence are:

- o 3.5 m (11.5 ft.) high treated posts with 15-centimetre diameters.
- o 2.1 m (7 ft.) high page wire.
- o 5 m (16 ft.) spacing between posts.
- o top rails where required.

A number of one-way game traps (Map 4) will be incorporated within the fence to draw big game into Blackfoot. These 18 m (60 ft.) long traps will funnel both big-game cows and calves into the trap before it is sprung.

2.3.4 Management Considerations

The Blackfoot will continue to provide hunting opportunities for both licensed hunters and non-licensed treaty Indians. Under present legislation treaty Indian hunting is allowed on unoccupied Crown land which is representative of the Blackfoot area. Today, licensed hunters seek ruffed grouse and both deer species, while treaty hunters concentrate mainly on elk and moose. There is no licensed hunting of moose and elk. Approximately 20-30 ungulates are now annually removed through hunting by Indians. This is within acceptable management limits. Wildlife populations will be closely monitored by the Fish and Wildlife Division during and following reserve development. If required, proposed management considerations can be implemented.

Hunting will be allowed both in the pasture development area and the natural landscape area. Although the bird game hunting season (September to November) overlaps with the cattle grazing season (May to October), problems are not expected, for hunting will not be allowed in the two pastures occupied by cattle or in the horse holding pasture. For bird hunting, vehicle access into Blackfoot will be limited to established roadways within the pasture development areas. For public safety, an 400 m (440 yd.) "no shooting zone" will be established around the recreation day-use staging areas. Trails nearing this 400 m (440 yd.) buffer to day-use areas will be posted to inform hunters of their proximity. These postings will also inform other Blackfoot area users of the hunting season.

Bird game hunters will be limited to hunting on foot in Blackfoot. Increases in both waterfowl and upland game bird hunting are anticipated in Blackfoot and a put-and-take pheasant season is being considered. With the expected increase in deer numbers, a similar increase in deer hunting is expected.

With the Big Game Hunting Season for Blackfoot being in November, there is no conflict with the cattle grazing season. For now, big game hunting will remain as an open season. However, a draw-permit system for big game hunters may be considered upon completion of reserve and recreation development and monitoring of wildlife populations. If required, this system would provide a more effective mechanism than an open season for managing resident ungulate populations because sex, age and number harvested can be specified. Hunting access may then be

permitted only from a central staging area. Setting up a check station within the Blackfoot area to monitor the hunting harvest also remains an option for future consideration. The timing, duration and extent of hunting would be adjusted annually according to harvest requirements. In addition, the designation of a two-week bow season prior to the use of firearms for the big game hunting may be considered.

Another option is to designate the Blackfoot as a wildlife area under section 7.2 of the Wildlife Act (Chapter W-9 RSA 1980) which reads:

> The Lieutenant-Governor in Council may make regulations:
>
> (a) Designating any area of land to a wildlife sanctuary, bird sanctuary, wildlife protection area or habitat management area;
>
> (b) Establishing classes of wildlife sanctuaries, bird sanctuaries, wildlife protection areas or habitat management areas;
>
> (c) Providing for the control and management of any class of wildlife sanctuary, bird sanctuary, wildlife protection area or habitat management area; and
>
> (d) Fixing the terms and conditions under which and the purposes for which persons may be admitted to or excluded from any class of wildlife sanctuary, bird sanctuary, wildlife protection area or habitat management area.

Under this designation, the carrying of firearms can be controlled.

In accordance with both the bird game and big game regulations, hunting is not allowed on Sundays in Blackfoot. Vehicles will be restricted to the established roadways within the pasture development areas. Driving around in pastures will not be permitted. Research in Alberta has shown that 80 per cent of all moose harvests and hunter

BLACKFOOT OPERATIONAL DEVELOPMENT PLAN
MAP 4

WEST OF THE FOURTH MERIDIAN

SCALE 1:40 000

Kilometres 1 ½ 0 ½ 1 Kilometres

Miles ½ 0 ½ Miles

LEGEND

- Loose or stabilized surface
- Loose surface dry weather roads
- Truck trails
- Seismograph lines or trails
- Pipeline
- Stream
- Wellsite
- Lake

ELK ISLAND NATIONAL PARK

TP.52, R.20

TP.52, R.19

FOURTEENTH BASE LINE

Blackfoot Lake

HEADQUARTERS

Lake

WILDLIFE DEVELOPMENT PLAN

- Natural landscape
- Possible adjustment area.
- Pasture development
- Ungulate fence
- One-way game traps
- Day-use recreation staging area

efforts occur within 1.6 km (1 mi.) of roads. No greater removal of big game is anticipated because of the ungulate fence. In other similarly enclosed big game areas, hunting success inside has not been any higher than hunting success outside the enclosure. Also, no correlations have been established between big game kills and their proximity to the ungulate fence. Ungulates quickly became adapted to their enclosed habitat and escape routes are soon determined.

A second wildlife management consideration is the provision of a wildlife wintering area within the pasture development area. Under the rest-rotational grazing system, the rested field (ungrazed by cattle for a total growing season) will provide a wildlife winter grazing area for large ungulates, mainly elk. To lessen the impact of recreation on these animals, winter recreational activities will not be permitted here.

A third management consideration is the maintenance of the present registered trapline. Trapping in the Blackfoot area is recognized as a beaver management tool. The use of a snowmobile for checking the trapline is permitted.

A fourth management consideration is the protection of the great blue heron nesting sites on islands of Islet and Blackfoot lakes. Interpretive signs will be posted near the Islet Lake and Blackfoot Lake day-use areas informing the public of the bird's sensitivity to disturbance during the nesting season. The public will be instructed not to approach within 0.5 km of the heronries between April 15 to July 30 to

reduce harassment to nesting birds during a period when they are sensitive to disturbance.

2.3.5 Development Work Staging for Wildlife Protection

With favorable weather conditions, construction of the ungulate fence can be done in a year. Plans are to clear the ungulate fence line preferably prior to or when the first pasture is cleared. Construction of the fence with the one-way game traps will begin the following spring and is expected to be completed that summer.

2.4 Recreation

2.4.1 Introduction

The Blackfoot's planned recreation objective of providing for a variety of year-round day-use recreation opportunities will accommodate the increasing recreation interests. Overnight camping is under consideration but will be limited to accredited environmental or outdoor education groups on a permit basis only. The site designated for this use is the back-country shelter between the Blackfoot, the Waskahegan Trail and Central staging areas. Snowmobiling, cross-country skiing, snowshoeing, hiking, picnicking, canoeing, horseback riding and hunting will be accommodated. Activities permitted within the natural landscape area are hiking, snowshoeing, cross-country skiing, horseback riding, picnicking, canoeing and on-foot hunting. Although most of the

previously mentioned activities can occur in the pasture development area, the concentration will be on snowmobiling and roadway vehicle access for big game hunting. Horseback riding is recognized on designated trails in the natural landscape area and in the pasture area. Trail bike riding or use of all terrain vehicles will not be permitted in Blackfoot. Visitors can have access to Blackfoot from any of the day-use recreation staging areas. A trail network throughout Blackfoot will allow visitors to view and appreciate this area's varied landscape with its diverse wildlife population (Map 5).

2.4.2 Development

The development of basic recreational facilities will accommodate the Blackfoot visitor needs. To maintain the integrity of the area's wildlife, recreational developments will be limited in the number and size of the day-use staging areas and the number of recreational trails. It is also recognized that the ungulate fence will assist in controlling public access into Blackfoot. Locked metal swing gates 2.1 m (7 ft.) high will be placed at all vehicle access points not part of the planned recreation staging areas. Developments will be phased over several years. Where possible, existing trails will be incorporated into the trail network.

Facilities to be provided at the recreation staging areas include parking lots, warm-up shelters, washrooms, picnic tables and stoves. A general description of these facilities follows.

1. Parking lots: All lots will be all-weather gravelled unless otherwise stated. All lots will be bordered with wood posts or concrete boulevards to discourage off-lot parking.

2. Warm-up/picnic shelters: The modified picnic shelters (adapted for year-round use) will have a wood stove and contain 6 picnic tables.

3. Washrooms: Environmental standards require that earth pit toilets not be used; instead, a pumpout vault toilet will be used in association with the planned recreation developments. The vault toilet has a fibreglass-concrete holding tank. A double combination vault toilet has two toilets per sex in one building.

4. Headquarters building: This will be a combination administration centre for staff and a public use facility. The public use component will include an information counter and an open space for local history displays and interpretive exhibits on the integration of programs in the Blackfoot. Coffee machines and a public telephone will be provided in this area. This site will also include a fenced maintenance compound and maintenance building. Vault toilets will be provided in association with the day-use area.

5. Trail standards: Five trail standards will be used in the Blackfoot:

a) Circulation trail: Heavy use areas, surfaced, suitable for service vehicle access, about 3 m (10 ft.) wide;

b) Equestrian trail: In most areas, an existing gas well access road, new trail clearing will be about 3.5 m (11.5 ft.) wide;

c) Double track ski trails: Most short loops and first parts of trails leaving staging areas. Clearing will be about 3 m (10 ft.) to accomodate mechanical grooming equipment;

d) Single track ski trails: Lighter use trails in vicinity of staging areas cleared to about 2.5 m (8.2 ft.) to accomodate mechanized grooming equipment; and

e) Back country ski trails: Remaining trails cleared to about 2 m (6.5 ft.).

One-half m (1.5 ft.) of associated shrubbery will be left on both sides of all trails.

6. Stoves: All stoves will be of a steel-culvert type, set on a gravel base. These stoves have a swing-top cooking unit.

7. Tables: In the year-round use areas tables will be permanently located and anchored.

A 90 km (56 mi.) network developed throughout Blackfoot will accommodate hiking, cross-country skiing and, on designated trails, horseback riding. To disperse users, the trail network will represent a maze with multiple loops. Three small back-country shelters will be

located at major trail intersection points and will serve as destination areas for trail users. (Trail shelters, accommodating six to eight people, contain two picnic tables and a small wood-burning heater. A pair of earth pit toilets will be associated with each shelter.) The back-country shelter between the Blackfoot Lake and the Waskahegan Trail and Headquarters staging areas designated for possible overnight use will also be designed for use by equestrian groups as a "lunch stop" with provisions for hitching and watering. Plans eventually are to link the Blackfoot trails to those proposed in the adjacent Elk Island National Park isolation area.

Although the Blackfoot trails are for year-round use, many hiking trails will only be suitable for late summer or fall use.

The establishment of a recreation advisory committee made up of representatives from major user groups is recommended. This group would have input to the final design stage of recreation development and to on-site management. Groups will be contacted regarding representation.

2.4.3 Development Considerations

Except for the central staging area, each recreation staging area parking lot will be located as close as possible to the Blackfoot boundary and in proximity to trailheads or other recreation resource attractions (e.g. Wanisan and Islet Lakes). Most facilities will be close to the parking lots and designed for year-round use.

BLACKFOOT OPERATIONAL DEVELOPMENT PLAN MAP 5

WEST OF THE FOURTH MERIDIAN

SCALE 1:40 000

Kilometres 1 ½ 0 ½ 1 Kilometres

Miles ½ 0 ½ Miles

LEGEND

- Loose or stabilized surface
- Loose surface dry weather roads
- Truck trails
- Seismograph lines or trails
- Pipeline
- Stream
- Wellsite
- Lake

FOURTEENTH BASE LINE

BLACKFOOT LAKE STAGING AREA (ALTERNATIVE)

ELK ISLAND NATIONAL PARK

TP.52, R.20

TP.52, R.19

WASKAHEGAN TRAIL HEADQUARTERS STAGING AREA

Existing Waskahegan Trail

WANISAN LAKE STAGING AREA (ALTERNATIVE)

CENTRAL STAGING AREA

STAGING AREA (ALTERNATIVE)

RECREATION DEVELOPMENT PLAN

- Designated area for hiking, on-foot hunting, cross country skiing, snowshoeing and horseback riding on designated trails.
- Possible adjustment area.
- Designated area for horseback riding, roadway vehicle access hunting and snowmobiling. (Note: Although no hiker/skier trails are provided, these users can access the area.)
- Day-use recreation staging area
- Canoeing opportunities
- Trail network (eg. cross country skiing and hiking)
- Back-country shelter
- Metal swing gates
- Ungulate fence
- Natural areas reservation

Alberta Transportation indicates that the amount of recreational activity planned will not generate enough traffic to require the upgrading of roadways leading into Blackfoot.

Individual garbage cans will be used initially, but centralized garbage containers that permit mechanical removal will be designed into each staging area and installed as the area becomes totally functional. Trail users will be directed to adopt the "pack in--pack out" philosophy.

Table 1 describes each of the five day-use recreation staging areas. These recreation developments are compatible with the wildlife and grazing objectives.

Table 1. BLACKFOOT RECREATION STAGING AREAS

Day-Use Area	Recreation User Opportunities	Trails, Shelters and Associated Facilities	Additional Considerations
Central	Horseback riding, hiking and picnicking in the spring, summer and fall. Access for bird game and big game hunting. For the winter, snowmobiling, cross-country skiing and snowshoeing opportunities. Site developed as a combination-use area for recreation activities permitted in both the natural landscape area and the pasture development area. Should a permit system be applied, all hunters will have access from this area only.	- 2 warm-up shelters - 1 double combination vault toilet - 10 picnic sites - 1 hand-pump well - 40 car parking lot with trailer parking for 20 vehicles and bus turn-about loop - 15 km (9mi.)trail network half to be double tracked - 3 km (2mi.) of the double tracked trail also to serve as equestrian trail - An additional 28 km (17mi.) of equestrian trail will connect this area with the equestrian trail from the Waskahegan staging area - 2 km (1mi.) of backcountry trail to connect this area with the Islet Lake staging area	- A circulation trail - Initially, individual garbage containers, to be replaced with centralized garbage containers later - 2 back-country trail shelters provided one between the central and the Blackfoot Lake area and the other between the central and the Waskahegan Trail and headquarters staging area
Blackfoot Lake	Hiking and picnicking in spring, summer and fall. Foot access for fall hunting.	- 1 warm-up shelter - 1 combination vault toilet - 30-car parking lot	- Garbage containers, as outlined for other staging areas

Table 1. BLACKFOOT RECREATION STAGING AREAS (Cont'd)

Day-Use Area	Recreation User Opportunities	Trails, Shelters and Associated Facilities	Additional Considerations
Blackfoot Lake (Cont'd)	Long distance cross-country skiing and snowshoeing area. Horseback riding and snowmobiling not permitted. (Recognizing this area as an important core wildlife area, fewer facilities and longer distance trails will be provided. Opportunities for big game viewing will be best here.)	- 15 km (9mi.) compound loop trail system, the longest loop 12 km (7mi.)with cutoffs at 5 and 8 km. (3 and 5 mi.) - maybe 1 to 3 km (.5 to 2mi.)of double tracked trail dependent on final layout	
Waskahegan Trail and headquarters	This staging area will be developed as a combination-use area for recreation activities permitted in both the natural landscape area and the pasture development area. Access to pastures from this area for horseback riders and snowmobilers; access to trails for hikers, horseback riders and skiers. Hunter access to either the natural landscape area or the pasture development area, under the present hunting system. Picnicking opportunities provided.	- 2 warm-up shelters - 2 double combination vault toilets - 10 picnic sites - 1 hand-pump well - 60-car parking lot with trailer parking for 20 vehicles - 15 km (9mi.)trail network, half to be double-tracked - 2 km (1mi.)of double tracked trail to serve also as equestrian trail - An additional 6 km (4mi.) equestrian trail (mainly existing roadway) to connect with equestrian loop trail at the central staging area - Improvements to existing trails - Administration offices and maintenance site	- A circulation trail - Garbage containers, as outlined for other staging areas

Table 1. BLACKFOOT RECREATION STAGING AREAS (Cont'd)

Day-Use Area	Recreation User Opportunties	Trails, Shelters and Associated Facilities	Additional Considerations
Islet Lake	Canoeing, hiking and picnicking in spring, summer and fall. Foot access for fall hunting. Winter cross-country skiing and snowshoeing area. Horseback riding and snow-mobiling not permitted.	- 1 warm-up shelter - 1 double combination vault toilet - 15 picnic sites - 1 hand-pump well - 40-car parking lot - 10 km (6mi.)trail network half to be double tracked - 3 km (2mi.) back-country trail to connect with Wanisan Lake staging area	- A light gravelled or sand shoreline for canoeists. A small dock to be provided - A circulation trail - Garbage containers as outlined for other staging areas - Structures provided to allow skiers and hikers through access where trail crosses the ungulate fence - 1 back-country trail shelter between Islet Lake and Wanisan Lake staging areas
Wanisan Lake	Canoeing, hiking and picnicking in spring, summer and fall. Foot access for fall hunting. Winter cross-country skiing and snowshoeing area. Horseback riding and snow-mobiling not permitted--because this area is recognized as an important core wildlife area the facility developments are located outside the ungulate fence	- 1 warm-up shelter - 1 double combination vault toilet - 10 picnic sites - 1 hand-pump well - 40-car parking lot - 15 km (9mi.) trail net-work, half to be double tracked	- A light gravelled or sand shoreline for canoeists. A small dock to be provided - Although not within the Blackfoot planning area, the SE quarter section of 8-52-20-W4M represents Crown land held under a natural areas reservation. The Blackfoot's planned recreation developments are compatible with this reservation. - A circulation trail - Garbage containers as outlined for other staging areas - To take advantage of the Wanisan Lake's shoreline, that portion of the trail parallelling the lake will be located outside the ungulate fence - Structures provided to allow skiers and hikers through access where trail crosses the ungulate fence

2.4.4 Management Considerations

To co-ordinate recreation, wildlife and grazing activities within Blackfoot, a full-time manager is required. This individual will be responsible for administering and managing the total Blackfoot area. An effective liaison will have to be maintained with the concerned government agencies. The incumbent will be the public contact person for Blackfoot.

Recognized primarily as a day-use area, the Blackfoot recreation staging areas will be posted as being open during daylight hours only. At established times throughout the season, gates may be opened before sunrise to allow hunter access during the hunting season or left open past sunset to allow early evening snowmobiling and hunter egress.

Management considerations for recreation will be greatest in winter. To prevent user conflicts, snowmobiling and cross-country skiing have designated use areas (Photos 11 and 12). Snowmobiling areas will be permitted in the six pastures not used for wildlife wintering. The pasture used for wildlife wintering (rested) will be posted "no snowmobiling". Access for snowmobiling will be from the central and the Waskahegan Trail staging areas. Once every seven years when pasture No. 7 is rested (used for wildlife wintering), snowmobiler access will still be provided to pasture No. 6 from pasture No. 7.

Photo 11. Cross-country Skiing on Washahegan Trail in Blackfoot

Photo 12. Snowmobiling Day Excursion

Snowmobiling will be permitted when the snow cover is at a sufficient depth to protect the improved pastures from erosion or from compaction damage to the grasses. Alberta Recreation and Parks will determine the suitable minimum snow depth, and notices will be posted at the appropriate vehicle access points to inform the public.

The Fish and Wildlife Division may require certain areas to be closed when snow depth is so great that recreation activities would place undue stress on wildlife. This would apply to both snowmobilers and skiers. However, the likelihood of having such a snow accumulation in Blackfoot is probably a one-in-10-year occurrence.

Depending upon public interest, a snowmobiling program can be established within the pasture development area. Each pasture could be designated a specific use. Specified routes could be established in pastures with more natural landscape areas. Some pastures could have a limited speed limit, while others could serve as frolic areas. Recognizing that the "rested" pasture changes yearly, the snowmobiling program could also vary yearly. Local snowmobiling clubs could develop a snowmobiling program in co-ordination with Alberta Recreation and Parks and could also assist in policing the program.

The ski trails near the staging areas will be groomed on a regular basis; the back-country trails will not.

During the cattle grazing season (May 15 to October 15), the Waskahegan Trail and central staging areas vehicle access-points to the pasture development area must be controlled. Under the combined rest-rotational and deferred-rotational grazing system, hikers and horseback riders can at any one time have access to five of the seven pastures unoccupied by cattle.

Snowmobiles will not be permitted on the trail network. Designated trails and the pastures unoccupied by cattle will be available for use by horseback riders. Trailheads, except those for horseback riding will have Y-gates to prevent cattle, horse and vehicle access to the trail network. Signs will be posted on the horseback riding trails advising snowmobilers not to enter.

Information and orientation signage will be posted at all staging areas. Signs will include directions, regulations and interpretive messages. All trails will be marked as to degree of difficulty, distance and direction.

Information brochures supplied at all staging areas will indicate permitted activities, available facilities and trails for Blackfoot users. Brochures applicable to each particular season could be furnished (e.g. summer, fall and winter).

2.4.5 Development Work Staging for Recreation

Overall, recreation developments will be phased in over three years. Initial work will consist of design for the five staging areas and overall trail plan. Construction will be initiated at the Waskahegan Trail, Islet Lake and the central staging areas. The headquarters will be developed in conjunction with the Waskahegan Trail staging area. Trail development will also be phased over three years in conjunction with the development of the staging areas. The Wanisan and Blackfoot Lake staging areas will be developed following completion of the first three staging areas if feasible or as demand warrants, although some of the trails around Wanisan will be improved or constructed as part of the Waskahegan and Islet Lake programs.

Present use patterns will be permitted on those lands where development has not been initiated until such time as planned recreation or grazing programs are completed to accommodate them. While some trail improvements will be made, cross-country skiing and snowmobiling will continue on existing trails for the first two years. Present access points can be used until the ungulate fence is completed. After fence completion, snowmobile and equestrian access will be at the central and Waskahegan sites only. By the third year, fence lines will be in place and snowmobiling will be restricted to the available pastures. Sections of the cross-country ski trails from the Waskahegan, Islet Lake and central staging areas will be completed annually. Equestrian use

will continue on existing routes until the completion of the central staging area and the components of the 37 km (23 mi.) of equestrian trail.

Until developments have been completed, every attempt will be made to minimize inconveniences to the Blackfoot recreational users.

2.5 Conclusion

The Blackfoot Operational Development Plan attempts to integrate, in the most compatible manner, improved grazing, wildlife protection and recreation. In recognition of the Blackfoot area's resource capability and the expressed public needs, the plan provides opportunities for various land-use activities to co-exist on a shared land base.

SECTION THREE. PLANNING DISPOSITIONS

3.1 Blackfoot Grazing Association

Permission will be obtained from the Blackfoot Grazing Association to proceed with the development work as outlined.

On completion of the development phase, the Blackfoot Grazing Association's lease issued by the Public Lands Division of Alberta Energy and Natural Resources will be terminated, and the Blackfoot area will be transferred to Alberta Recreation and Parks for administration and management.

3.2 Mineral Activity

Map 6 illustrates natural gas well sites, roadways and the gas pipeline crossing Blackfoot. A licence of occupation covers roadway access to well sites. The gas pipeline (right-of-way width of 18.24 m or 60 ft.) is covered under a pipeline agreement. A gathering system of smaller gas pipelines (right-of-way width of 16 m or 52 ft.) collects from the gas wells and join the main gas pipeline.

Based on the Blackfoot Integrated Resource Plan, the following considerations should apply to any mineral development to occur in Blackfoot:

1. Where possible, gas well sites and their associated roadways should be retained within the pasture development areas. Some consideration should be given to relocating roadways from the natural landscape area into the pasture development area.

2. When development work must occur in the natural landscape area, consideration must be given to maintaining this area's esthetic qualities. This condition can be identified in the lease agreement.

3. Within 0.8 km (875 yds.) of the recreation staging areas, development of a well site will not be permitted. (This is to minimize conflict from noise, esthetics, safety, etc.)

BLACKFOOT OPERATIONAL DEVELOPMENT PLAN
MAP 6

WEST OF THE FOURTH MERIDIAN

SCALE 1:40 000

Kilometres 1 ½ 0 ½ 1 Kilometres

Miles ½ 0 ½ Miles

LEGEND

- Loose or stabilized surface
- Loose surface dry weather roads
- Truck trails
- Seismograph lines or trails
- Pipeline
- Stream
- Wellsite
- Lake

FOURTEENTH BASE LINE

ELK ISLAND NATIONAL PARK

TP.52, R.20

TP.52, R.19

MINERAL ACTIVITY

- Gas field roadway network
- Main gas pipeline
- Gathering system
- Producing gas well
- Capped gas well
- Abandoned gas well

LIST OF REFERENCES

Alberta Department of Energy and Natural Resources. Resource Evaluation and Planning Division. Resource Planning Branch. 1980. Integrated Resource Plan: Blackfoot Grazing Reserve. Edmonton. (ENR Report T/1-No. 1)

POOR

QUALITY

ORIGINAL